

## NORTH PACIFIC OCEAN, AUGUST, 1932

By WILLIS E. HURD

*Atmospheric pressure.*—On the average the pressure situation over the North Pacific Ocean for the month of August, 1932, consisted of a great anticyclone which covered a wide area in west longitudes, and extended in middle latitudes far to the westward of Midway Island. This region was little disturbed by cyclones.

A shallow LOW, with pressures above normal for the month, covered the Bering Sea and adjacent part of the Gulf of Alaska, and another LOW, the deepest of the month covered the East China Sea.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, August, 1932, at selected stations

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Point Barrow.....	29.99	+0.10	30.40	30	29.54	3
Dutch Harbor.....	29.92	+0.06	30.32	29	29.56	9
St. Paul.....	29.84	+0.06	30.26	30	29.30	9
Kodiak.....	29.88	+0.02	30.22	17	29.62	22
Juneau.....	29.99	-0.03	30.27	5	29.54	27
Tatoosh Island.....	30.02	+0.02	30.25	3	29.77	15
San Francisco.....	29.88	-0.04	30.02	3	29.60	27
Mazatlan.....	29.81	-0.10	29.90	2, 18	29.66	27
Honolulu.....	30.01	0.00	30.09	6	29.91	16
Midway Island.....	30.07	-0.01	30.18	9	30.02	15, 31
Guam.....	29.83	+0.01	29.92	6, 27	29.74	4, 12
Manila.....	29.78	-0.02	29.86	30	29.70	1, 12
Naha.....	29.69	0.00	29.98	30	28.88	22
Chichishima.....	29.90	+0.14	30.10	30	29.72	12
Nemuro.....	29.88	-----	30.26	23	29.58	15

NOTE.—Data based on 1 daily observation only, except for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departures are computed from best available normals related to time of observation.

*Cyclones and gales.*—While cyclonic activity increased slightly over that of July in northern waters of the Pacific, days with gales were few, and in only one instance thus far reported were there gales above fresh force due to extra-tropical disturbances.

*Typhoons.*—Three active typhoons are known to have occurred this month. The first was a continuation of a storm earliest reported east of Luzon on July 29. This storm gained great intensity in the East China and Yellow Seas during August 1-3, and retained at least whole gale force in the Japan Sea on the 4th and 5th.

The second typhoon originated on the 3d or 4th about midway between Guam and Luzon. It first moved toward the Philippines, but on the 5th swerved northward. From the 10th to 15th it shifted backward and

forward southeast of Kiushu Island, Japan, then proceeded rapidly in a northeasterly direction past eastern Honshu, and disappeared at sea on the 17th. The storm was of considerable depth south of Japan, as indicated by the Tokyo weather maps. Reports from our observers show that gales of force 10 to 11 accompanied the typhoon at sea east of Japan during the 16th and 17th.

The third typhoon formed east of the Marianas about the 17th, took a generally west-northwesterly course, passed south of Naha on the 22d, and entered the China coast northwest of Taiwan on the 24th. The intensity of this cyclone is partly indicated by the regular afternoon observation at Naha on the 22d, at which time the barometer read 28.88 inches; wind, force 9, southeast.

*Mexican west coast hurricanes.*—Signs of disturbances, accompanied by fresh local gales, were experienced off the Mexican coast on the 1st and the 15th and 16th, but the two fully developed cyclones of the month in or near these waters occurred on the 21st and 22d and the 24th to 27th.

The cyclone of the 21st and 22d was reported by the American steamer *Mauna Ala*, Hawaiian Islands to Balboa. She ran into a moderate northwest gale at noon of the 21st, in latitude 15° 26' N., longitude 112° 18' W.; had an east gale of force 10, near 15° N., 111° W., at 5 a. m. of the 22d, barometer 29.08 inches, and ran out of the gale at about 4 p. m. of that day. She thus ran to the north and east of the cyclone center, which must have been of considerable intensity, moving northwestward less than 200 miles south of the Revillagigedo Islands.

The other cyclone probably originated southwest of the Gulf of Tehuantepec, and followed the direction of the coast but at some distance from it until, late on the 25th, it curved northward and during the night of the 26th-27th apparently entered the coast southeast of Manzanillo. There it rapidly dissipated. The cyclone was of hurricane force from afternoon of the 25th until it struck the Mexican Cordilleras. The lowest barometer reported was 28.64 inches, read on board the steamer *Santa Ana* some 50 to 75 miles from Manzanillo at 4 p. m. of the 26th. The steamer *Betterton* was involved in the storm with moderate gale to hurricane winds from 8 a. m. until 10 p. m. of this date. Press accounts said that the coast damage amounted to approximately \$5,000,000. Reports of vessels involved are given in the accompanying table of gales.

*Fog.*—Fog was less frequent than in July. Along the northern routes it occurred on 2 to 9 days in different localities, and on 6 to 9 days along the Oregon and California coasts.